

First off, I want to thank ASIST and the Conference Committee for allowing me the honor of giving the closing plenary.

I'm Peter Merholz. I'm the Director of Practice Development at Adaptive Path. I'm also currently serving as President of the Information Architecture Institute. Some of you know me as the "post-it note" guy.

I now ask you to indulge me in a bit of biography. In preparing this talk I realized that my professional development has quite closely paralleled the development of the field of information architecture. For those who have attended prior summits, or practiced IA for a while, this might be a refresher. But over half of the attendees this year are first-timers, and I think a look back will be helpful.

So lets go back from 2006, 2005, 2004, 2003 2002, 2001, 2000 (the year of the first IA Summit), 1999, 1998, 97, 96, 95, still back, 94, 1993.















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## 1995

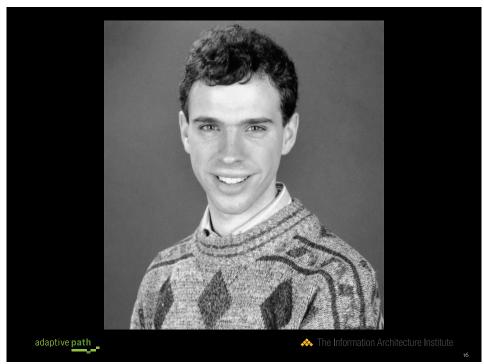
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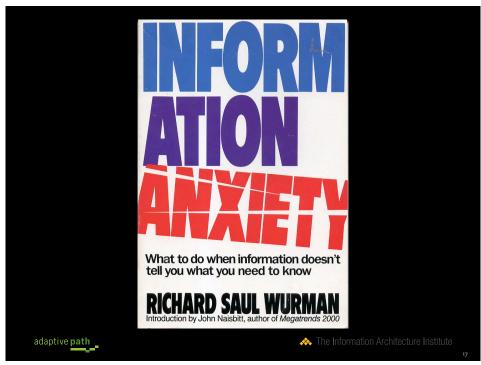




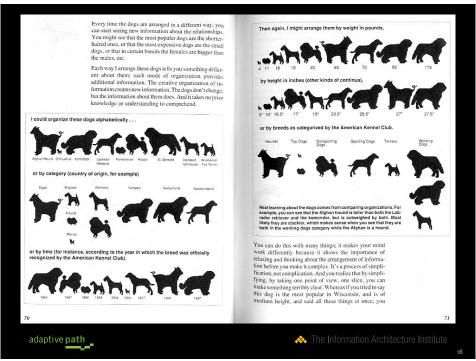
I looked something like this....



I worked as a research assistant for a professor in the Graduate School of Education at UC Berkeley. One day I saw on his shelf a curious book. Titled "Information Anxiety," it was written by a man of whom I'd never heard -- Richard Saul Wurman.



When you first look at it, the book is quite strange -- the detailed table of contents is 21 pages long (for a book that's 330 pages), and it's filled with diagrams, sidebars, pullquotes, and the like. In it, Richard propounds his thesis that in a world with such rapid creation of information, we need to be explicit about how we organize and present that information.



Here's a spread on various ways one might categorize dogs. I found myself totally geeking out to stuff. Looking at the world this way made sense to me.



Wurman actually wrote that book in... (page back)







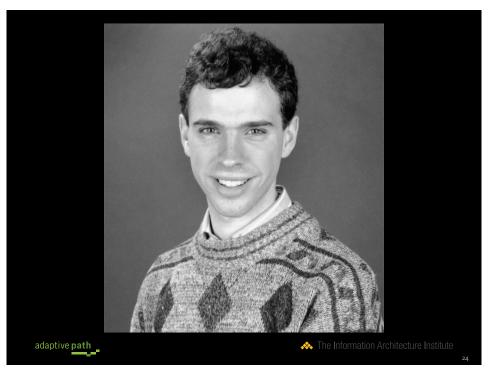
1989,



the same year that Tim Berners-Lee invented the World Wide Web. Wurman was concerned with the overwhelming amount of printed information; the internet is never mentioned.

Peter Morville's talk on Ambient Findability reminded me that this was also the year of Marcia Bates seminal essay, "The Design of Browsing and Berrypicking Techniques for the Online Search Interface."

As a further aside, Wurman coined the phrase "information architects" in 1975 for an American Institute of Architects meeting. He was never able to get it to catch on. But more on that later. (Reference at: <a href="http://frontwheeldrive.com/richard\_saul\_wurman.html">http://frontwheeldrive.com/richard\_saul\_wurman.html</a>)



So, there I was in 1993, inexplicably drawn to the problem of too much information, and how to manage it all. Not knowing what to do about it, I set it aside and pursued a career in multimedia design and development, which, after a couple of years (1994, 1995) leads me to Studio Archetype in 1996.



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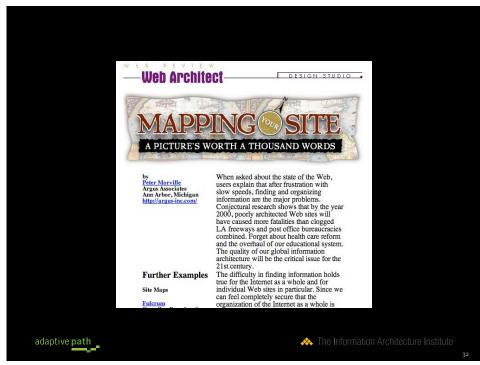
Studio Archetype was a leading graphic design company in San Francisco. Archetype is important in the history of information architecture because they were among the first design agencies to label themselves as "information architects." They were definitely descendants of Wurman's philosophy, practicing "design for understanding."



It was a very intuitive approach to IA -- like as happened in many other places, people there realized that if they were going to design complex multimedia experiences (IA at Studio Archetype started with CD-ROMs), they needed to map the experience and present the information in a clear fashion.



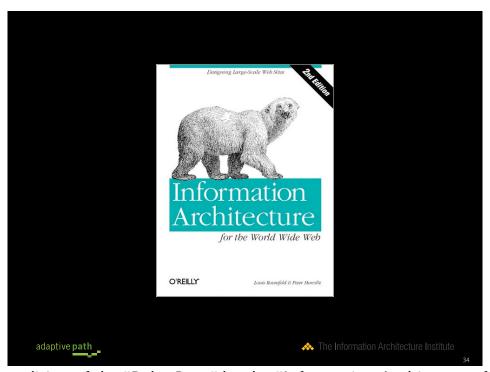
It was around this time that I wrote an article for the now-defunct The Net magazine, on the subject of "Navigating the Internet." Sadly, I cannot find this article. It was the first time I deeply probed issues of usability, navigation, and search, and in it,



I interviewed some guy named Peter Morville, who, with his colleague Lou Rosenfeld, wrote a column called "Web Architect" for a webzine called "Web Review."

Peter and Lou were unrepentant librarians bringing their background to the web.





In 1998 they published the first edition of the "Polar Bear" book - "Information Architecture for the World Wide Web." The publication of the book helped legitimate the field of information architecture.

But what I was doing as an IA was addressed in only two of the chapters. The rest of the chapters dealt with things I didn't deal with explicitly (labels, metadata, search, etc.) What was going on?

What was going on was the struggle that came to dominate the early years of IA practice, the intuition-driven approach of "West Coast IA" versus the rigorous content analysis approach of "polar bear IA".





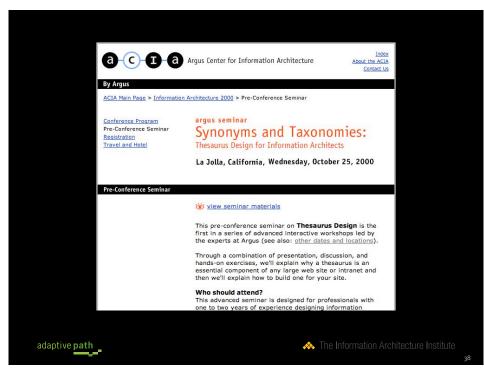
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	April 7-9 2000 · Logan Airport Hilton · Boston, MA  PROGRAM SCHEDULE	
Friday, April		
7-9pm	Reception / Networking	
Saturday, April 8, 2000		
8-9am	Registration / Continental Breakfast	
9-10am	Welcome / Keynote Presentation Louis Rosenfeld, President, Argus Associates	
10-10:30am	Coffee / Networking Exercise Sponsored by iXL Corporation	
10:30am-12:00n on	Session #1  Sayle Curtis - Creative Director, vivid studios Seth Gordon - Principal of Experience Design, ZEFER Paul Kahn - President, Dynamic Diagrams Peter Merholz - Creative Director, Epinions.com	

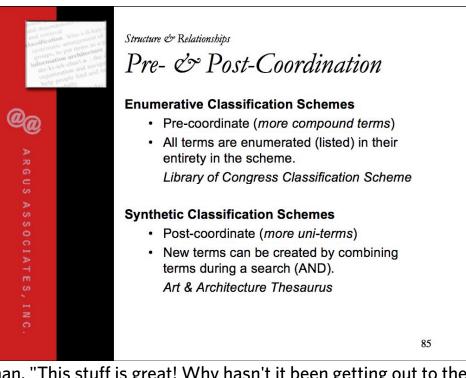
These came to a head in 2000 at the inaugural IA Summit. Lou was the conference chair, and invited web designers and librarians to meet, present, and share ideas. It took place in an airport hotel over a weekend, because the organizers were concerned people wouldn't be able to get time away from their jobs for this stuff.

In part of my talk I railed against the tyranny of the hierarchy, and how the ideas of hierarchical organization and of having one true location for something might make sense in a library, it didn't make sense in the digital world.

I was nearly booed off the stage. I heard voices from the crowd assert that librarians had other ways of organizing information. And I thought, "Why aren't I seeing them?"



Later that year I attended IA 2000, and I attend the Synonyms and taxonomies workshop given by Peter Morville and Samantha Bailey. They throw down some pretty hardcore LIS beats...



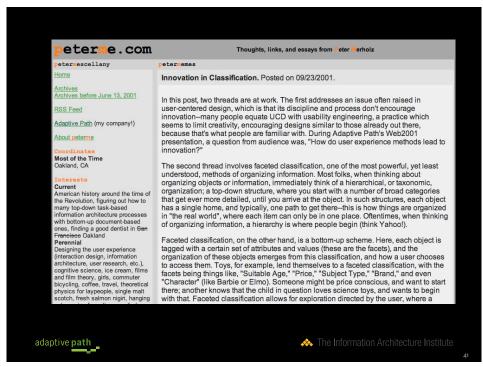
, and I come away a changed man. "This stuff is great! Why hasn't it been getting out to the larger world of web design?"



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2001, Innovation in Classification. A non-librarian promotes ideas from the LIS world. If you read this post, I get much of it deeply wrong, but it served the purpose of broadening interest in what many LIS folks thought was difficult and arcane.



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In 2003, the IA Summit happened in Portland. There we were cloistered in our hotel ballrooms, talking about metadata and the shape of information. And we learned, through our occasional contact with the outside world, that the United States declared war on Iraq. Riot police used our hotel as a rendezvous spot, so during our session breaks, we'd be discussing facets, and men with face shields would be storming past. The onset of the war upset me, but I couldn't imagine a group of more emotionally nurturing people than those around me at that time. The degree to which this professional community is so... real, so authentic, never ceases to amaze me.

2003, 2004, 2005...



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The IA Summit recovers from the dot bust. Information architects discuss the shape of information, facet analysis is mulled over umpteen times, the term folksonomy is coined on the Institute's mailing list.

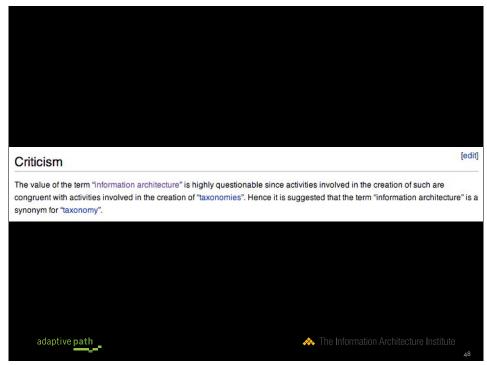




And now we're here in 2006, and boy, do IAs like tags. I thought things had gotten crazy last year with five sessions on facets; this year we have seven sessions with "tags" in the title, and tags have found their way into many other talks.

Anyway, here in 2006 we have more attendees than ever before. Information architecture practice flourishes within organizations. Information architecture is as strong as ever.

Both something else happened with the publication of the polar bear book, and the first IA Summit. Information Architecture became solely a web phenomenon.



Even worse, for many, it become synonymous with developing web site taxonomies. (wikipedia entry)

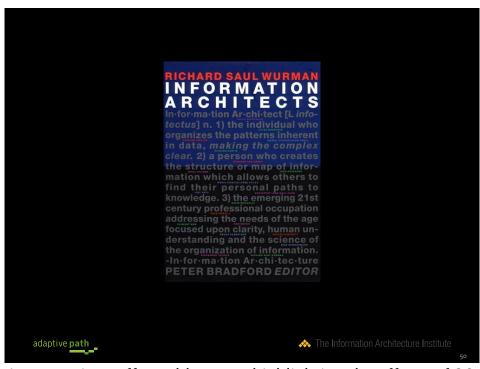
This isn't how it had to be. In fact, if you read Peter Morville's "a brief history of information architecture," you'll run across this passage:

In 1996, a book titled *Information Architects* appeared in our offices. We learned that a fellow by the name of Richard Saul Wurman had coined the expression 'information architect' in 1975. After reading his book, I remember thinking 'this is not information architecture, this is information design'. Peter Morville

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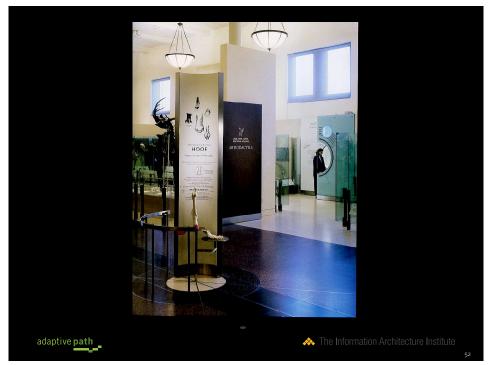
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The book to which Peter refers is a massive coffee table tome, highlighting the efforts of 20 individuals and teams as they try to "organize the patterns inherent in data, making the complex clear."



Peter is part right -- the bulk of the case studies refer to information design and graphics. But he wasn't wholly right -- there are also case studies of CD-ROMs, wayfinding within office buildings, and...



museum design, including signange, flow of exhibits, and the like.

Now, I'll grant that it was bizarre to have a whole book on "Information Architects" with no representation from the world of library and information science. But, in some ways, Wurman's naive approach was at its heart more expansive.

Which, at the time, might have been its problem. Peter and Lou decided to appropriate "information architecture" to describe their work in designing the information systems of large-scale web sites. And it stuck in a way that Wurman's attempt never did.

But, When IA fell under the influence of the librarians, it became restricted in scope to that which librarians are comfortable -- documents, and, specifically, documents and pages on the web.

But that's starting to change. And it's starting to change for one simple reason.

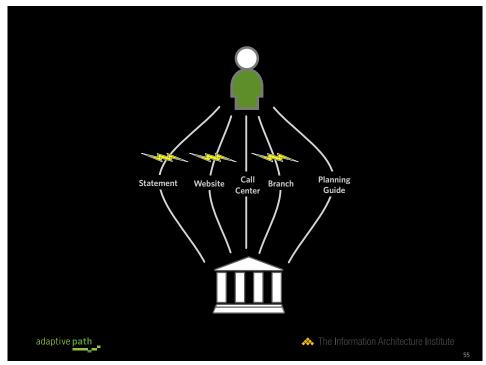




Research. Specifically, ethnographic-style research, where we go beyond focusing on just the product under question, and endeavor to understand more about our user's contexts -- the multiple ways they engage with an organization, the pressures they face as they attempt to do so, and the like.

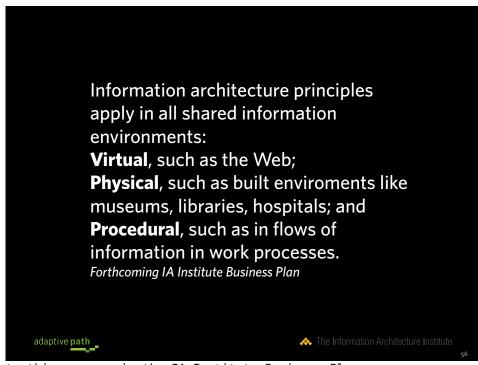
The increasing acceptance of conducting research is leading to a profound change in information architecture practice. This is because research makes apparent that you can't reduce the problem to a single domain or channel (like web sites). People interact with multiple channels in order to get things done.

And since information architects want nothing more than to satisfy the user, they recognize that focusing their energies solely on a website is insufficient.

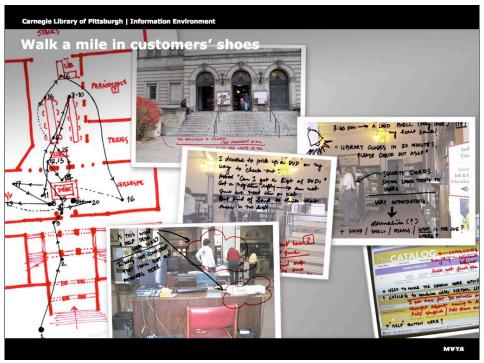


So we're starting to see the development of cross-channel information architecture.

This diagram is a modification of one from a recent project of mine. Though hired to focus on the website, our research demonstrated challenges across a number of touchpoints -- and that "fixing' the website, while valuable, wouldn't have the full impact of reconsidering how the organization approaches the customer experience.

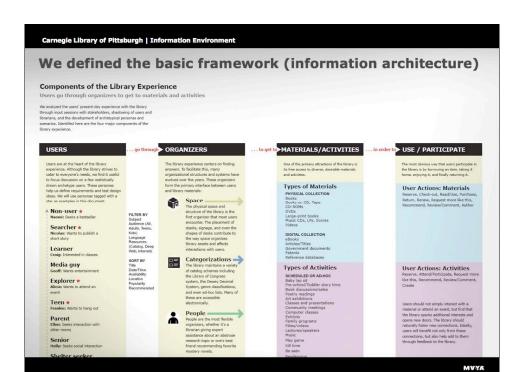


These realizations are what lead to this passage in the IA Institute Business Plan



The current canonical case study for this right now is the work MAYA did for the Carnegie Libraries. Though originally brought in to address the design of information kiosks, through their research they uncovered a far more complex set of problems, and by presenting innovative design solutions, they were able to convince the library to let them come up with an information architecture that spans the virtual and the physical. They even spent a lot of time testing their labels! (slides shown here are taken from the four decks on this page:

http://www.maya.com/web/what/what\_sightings\_events\_iaworkshop\_dec05.mtml)



## Carnegie Library of Pittsburgh | Information Environment

## What is the hierarchy of information?

### Classification Scheme

Orientation, Identification, Education, and Connection

We've organized signs into five broad categories. This will help guide visual design, allowing sign designers to create consistent syles and templates. It will also help us make decisions about the relative importance of signs and how mach of the user's attention should be develoted to each kind of communication. Each category is further divided into sub-categories, and examples of each are provided,

### Orient/Wayfinding [A]

Display the scope of physical spaces, time-based events and provide directions to major areas.

## \* Library map \* Area map \* Directory \* Directions

## Temporal [A-2] \* Event calendar

- \*Open/Closed
  \* Hours of operation
  \* Holiday schedule

## Identify Area [B]

Identify building, areas, stacks, and facilities within the library system.

- Major Areas [B-1]

  \* Carnegie Ubrary of Pittsburgh
  \* Entrance/Exit
  \* New and Featured
  \* Coffee Bar
  \* Lounge
  \* Teens
  \* Childrens'
  \* Magazines and Newspapers
  \* Movies, Music & Audiobooks

- Stacks [B-2]

  \* \_\_\_\_\_Collection (Open Shelves)

  \* \_\_\_\_\_Collection (Closed Shelves)

  \* LOC Subject (e.g., U.S. History)

  \* Subtopic (e.g., Vegetarian cookbooks)

  \* Location (e.g., Stack 16)

- Facilities [B-3]

  \* Meeting room

  \* Restrooms

  \* Elevator

CLP Network and Beyond [B-4]

## Educate [D]

Identify Action [C]

Identify actions that take place in the library.

Actions [C-1]

\* Adk a Ubrarian

\* Find it Here

\* Explore the Internet

\* Browse (Open/Closed Shelves)

\* Gustomer Services

\* Self-Checkout

\* Returns

\* Device-based actions (Photoopier, nucroffin, listening basels

\* Actions

\* Device-based actions (Photoopier, nucroffin, listening basels

\* Actions

\* Device-based actions

\* Device-bas

microfilm, listening booths, etc.)

Instruct, explain and inform library users to encourage self-sufficiency and help them become expert users.

## Instruct : "Just-in-time help to get Instruct: "Just-in-time he results" [D-1] How to... \* Sign up for an event \* Use online databases \* Access online databases

## Explain: "Transforming 1st-time-user into power-user" [D-2] Did you know? \* Fiction is shelved by author's last name

FAQ
\* How is fiction organized?

## Inform: "What CLP and its users expect of each other?" [D-3] \* Usage polices (Internet time limit: 30 min) \* Behavior expectations (No smoking) \* Legal disclaimers and disclosures

## Connect [E]

Establish connections between library's activities and resources in order to reveal them to the users serendipitously.

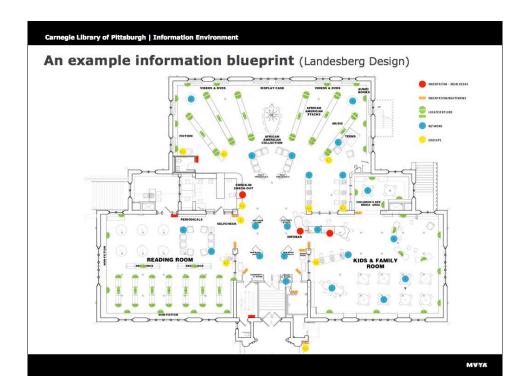
- Related connections (map directly to user actions/goal) [E-1] 

  \* Sponsored by the library 
  \* Sponsored/Cosponsored by a trusted third party (e.g., regional library initiatives or partnership with hospital) 

  \* Sponsored by the community (e.g., James Turell lecture at CRU)

# Random connections (serendipitous in nature) [E-2] \* Sponsored by the library \* Sponsored/Cosponsored by a trusted 3rd party (e.g., regional library initiatives or partnership with hospital) \* Sponsored by the community (e.g., neighborhood meeting, bulletin boards)

MAAV.



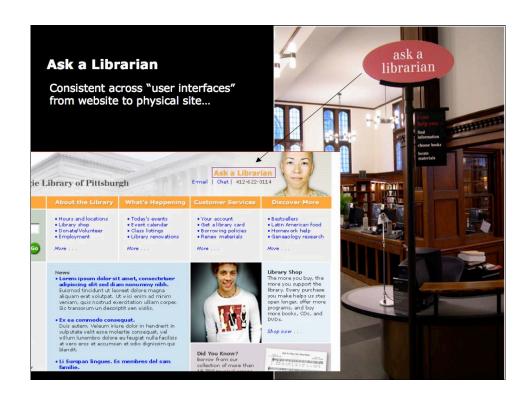


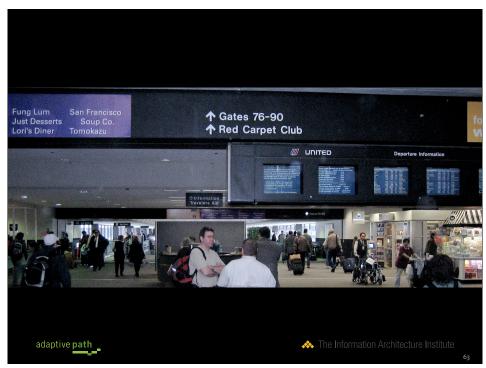
Based on extensive survey, lexicon shifts to "ask a librarian".

User-centered (not system-centered) language









Think about all the environments that could benefit from this kind of thinking. Most of you flew here, so you went through an airport. Airports are drenched in information -- flight times, signs pointing you to where to go, kiosks to get your tickets, rules about security, shops and restaurants. Would your experience have been improved with a little IA?

Information undergirds and pervades a remarkable amount of our daily lives. I want an information architect, or, at least, someone aware of the principles of information architecture, to have a hand in the design of the spaces and processes that have information as a substrate.

Wouldn't some IA thinking help?

And note: I call it "IA thinking." Some of you might be aware of this concept of "design thinking." The idea, essentially, to apply the "thinking" approaches that designers take to other realms, typically business problems.

Well, I believe the world could do with more "IA thinking." IAs are, at heart, exceedingly pragmatic problem solvers. Yeah, we like things that look good, and we recognize the power of an emotional connection. But we also recognize that, at the end of the day, people seek to just get shit done. And we love building systems that allow people to do that.

What joins together all the people in this room is, at heart, a desire for pragmatic problem solving with the sole result to



Another challenge facing information architecture is what folks call Web 2.0. Web 2.0 and tagging have been a huge theme at this conference. And some might think that web 2.0, with it's tagging, it's folksonomies, it's user-generated content and structure, signals a death knell for IA. That it's time for the "well-designed metadata crowd" to hang up its spurs and let the users have at it.

In fact, in a pre-conference seminar, it was suggested that IAs need to redefine themselves, and their practice, in order to meet the realities of Web 2.0.

Well, I don't. If we look at David Fiorito's brilliantly succinct description of what information architects do:

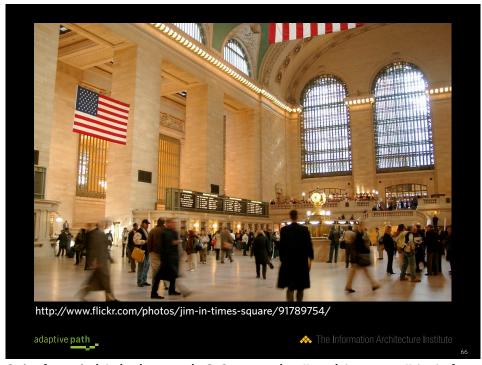
organization, categorization, and navigation (maybe that should be wayfinding)

David Fiorito

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All of that is relevant to web 2.0. In fact, I think that web 2.0 puts the "architecture" in information architecture. Think of an architect. They design the space. People flow through it, meet in it, contribute to it.

With that model, the bulk of information architecture currently on the web isn't really architecture -- it's some form of hyperdimensional document organizing. We're not creating a space that people move through, and engage with. We're classifying material to be retrieved.

But with web 2.0, we are providing an architecture -- a space, a platform through which and upon which people move, contribute, and change. And the many discussions on Web 2.0, tagging, and the like have demonstrated that we're thinking and doing on this problem more actively and more intelligently than almost anyone else.

For me, I think a huge opportunity going forward is thinking about how the fundamental attributes of Web 2.0 can intersect with cross-channel information architecture.

If information is a substrate running through an increasing amount of our "real-world" lives, and we believe that these web 2.0 principles are important for the future of information architecture, how do we merge the two?

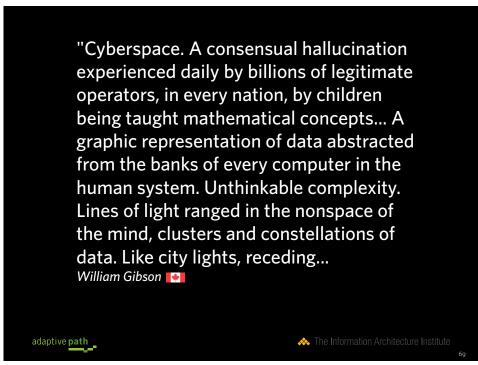


(Walk through image)



Whenever I think of this idea, I think of Barnes and Noble. Here is a retail organization, with hundreds of stores, millions of customers, a website, delivery services, store events. How could the Barnes and Noble experience benefit from the explicit application of cross-channel information architecture and the principles of Web 2.0?

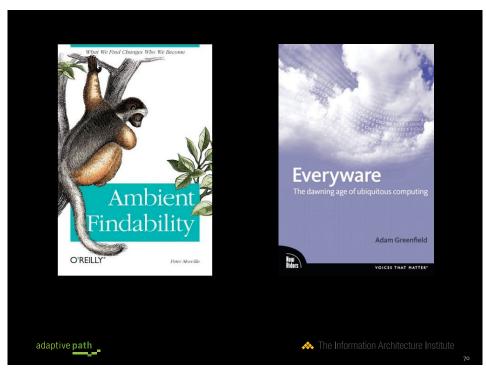
Another key aspect of the larger context is what some have dubbed the "end of cyberspace."



For the longest time, "cyberspace" was considered a domain separate from the real world.

But as digital networked media pervades more and more of our lives, the idea of a discreet region called "cyberspace" starts to feel like an anachronism. Who here has a mobile phone on them? One that can send photos by email, for example? Well, you're all carrying "cyberspace" in your pocket. And once that happens, distinguishing that from the "real world" becomes impossible.

And who is best suited to address "the online in offline space"? I think we are. We can appreciate the qualities of the information that form the substance that flows through (something something).



Is it any wonder that two of the best books about "ubiquitous computing" "invisible computers", whatever you want to refer to this idea of information systems embedded in the world around, two of the best books were written by self proclaimed information architects?

Ambient Findability by Peter Morville and Everyware by Adam Greenfield embrace the human aspects of this embedded chip world.

They also share a potentially surprising theme -- both authors are remarkably concerned with the humanistic aspects of these new technologies. Peter's final chapter attempts to come to grip with the social ramifications of ambient findability. Adam Greenfield's book is pretty much a treatise on ethical design of ubiquitous computing.

I think this is another important aspect that information architects bring that other disciplines neglect in their discourse. We wear our hearts on our sleeves. We're a bunch of idealistic freaks, who think, perhaps naively, that we really can make the world a better place.



And that, I think, speaks to the fundamental duality shared by the people in this room.

We're idealistic about our goals, our ends.

But we're pragmatic about how to get it done.

I just had lunch with a friend, someone for whom this was her first summit, and she asked, "who are you people?" She had trouble figuring out just what brought us all together.

We geek out about information problems. We draw from a range of disciplines to inform our work, and we try our hardest to solve these information problems the best we can, without getting too caught up in issues of dogma and territoriality.

And these information problems continue to get bigger, hairier, and more complex. And we have the skills, and the mindset, to contribute to the solution of these problems. Don't let a lack of confidence inhibit you. Don't let other people define your role for you. Demonstrate your ability to help. Don't let small thinking get in your way.

I can't imagine a better group of folks to take on these challenges. And I look forward to working on them with you.